



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,268	10/15/2003	Pankaj Agarwal	GP50029-1	9955

20462 7590 04/06/2005

SMITHKLINE BEECHAM CORPORATION  
CORPORATE INTELLECTUAL PROPERTY-US, UW2220  
P. O. BOX 1539  
KING OF PRUSSIA, PA 19406-0939

EXAMINER

LYLES, JOHNALYN D

ART UNIT	PAPER NUMBER
----------	--------------

1647

DATE MAILED: 04/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/687,268	<b>Applicant(s)</b> AGARWAL ET AL.	
	<b>Examiner</b> Johnalyn Lyles	<b>Art Unit</b> 1647	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 January 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-25 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-3 and 14-15 drawn to an isolated polypeptide and a pharmaceutical composition, classified in class 530, subclass 350 and class 514, subclass 2.
- II. Claims 4-13, and 16-19, drawn to an isolated polynucleotide, a pharmaceutical composition comprising a polynucleotide, an expression vector, recombinant host cells, a method for producing the host cells, and a method for producing a polypeptide, classified in class 536, subclass 23.5, class 435, subclasses 325 and 69.1.
- III. Claims 20-21, drawn to a method for treating a wound comprising administering a pharmaceutical composition comprising a polypeptide, classified in class 514, subclass 2.
- IV. Claims 22-25, drawn to and a method for treating a wound administering a pharmaceutical composition comprising a polynucleotide, classified in class 514, subclass 44:

The inventions are distinct, each from the other because of the following reasons:

Art Unit: 1647

Inventions I and II are independent and distinct, each from each other, because they are products, which possess characteristic differences in structure and function and each, has an independent utility that is distinct for each invention, which cannot be exchanged.

The polypeptide of Group I and polynucleotide of Group II are patentably distinct for the following reasons: polypeptides, which are composed of amino acids, and polynucleotides, which are composed of purine and pyrimidine units, are structurally distinct molecules; any relationship between a polypeptide and polynucleotide is dependent upon the information provided by the nucleic acid sequence open reading frame as it corresponds to the primary amino acid sequence of the encoded polypeptide. Furthermore, searching the inventions of Groups I and II together would impose a serious search burden. In the instant case, the search of the polypeptides and the polynucleotides is not coextensive. The inventions of Groups I and II have a separate status in the art as shown by their different classifications. In cases such as this one where descriptive sequence information is provided, the sequences are searched in appropriate databases. There is also search burden in the non-patent literature. Prior to the concomitant isolation and expression of the sequence of interest there may be journal articles devoted solely to polypeptides, which would not have described the polynucleotide. Similarly, there may have been "classical" genetics papers, which had no knowledge of the polypeptide, but spoke to the gene. Searching, therefore, is not coextensive. Furthermore, a search of the polynucleotide molecules of Group II would require an oligonucleotide search, which is not likely to result in relevant

Art Unit: 1647

art with respect to the polypeptide of Group I. As such, it would be burdensome to search the inventions of Groups I and II.

Inventions I and Invention III are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the method for treating a wound in a patient can be practiced with each of the materially different products of Inventions I.

Inventions I and IV are unrelated, and Inventions II and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, the different inventions are pharmaceutical compositions and methods for treating a wound not disclosed as capable of use together and have different modes of operation. The invention of Group I is polypeptides used in a method for treating a wound using a pharmaceutical composition comprising the polypeptide, whereas the invention of group IV is a method of gene therapy to treat a wound and the pharmaceutical composition comprising the polynucleotide. The invention of Group II is polynucleotides used in a method for treating a wound using a pharmaceutical composition comprising the polynucleotide, whereas the invention of Group III is a method to treat a wound and the pharmaceutical

Art Unit: 1647

composition comprising the polypeptide. As noted above, the polynucleotides and the polypeptides are independent and distinct.

Inventions II and Invention IV are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the method for treating a wound in a patient can be practiced with each of the materially different products of Inventions II.

Inventions III and IV are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, the different inventions are distinct methods not disclosed as capable of use together and have different modes of operation. The invention of Group III is a method for treating a wound using a pharmaceutical composition comprising the polypeptide, whereas the invention of Group IV is a method to treat a wound using the pharmaceutical composition comprising the polynucleotide. The methods use distinct reagents including the pharmaceutical compositions of the independent and distinct polypeptides and polynucleotides.

***Further Restriction Within Groups I-III***

Further restriction within the elected group is required, as follows. Applicants are advised that this is not a species election. Applicant is advised that the reply to this requirement to be complete must include an election of the invention and the claims readable thereon to be examined even though the requirement is traversed (37 CFR 1.143).

If **Group I** is elected, Applicants must further **elect one polypeptide for the pharmaceutical composition** selected from the group consisting of SEQ ID NOS: 35 and 46.

If **Group IV** is elected, Applicants must further **elect one polynucleotide** for the pharmaceutical composition selected from the group consisting of a polynucleotide encoding the polypeptides of SEQ ID NOS: 35 and 46.

If **Group III** is elected, Applicants must further **elect one composition** selected from the group consisting of an effective amount of the composition of claims 14 and 15.

Groups I, III, and IV above are patentably distinct because they are distinct products with distinct sequences, which possess characteristic differences in structure and function and each has an independent utility that is distinct for each invention, which cannot be exchanged.

Because these inventions of Groups I-IV are distinct for the reasons given above, have acquired a separate status in the art as shown by their different classification, and the search required for each group is not required for the other groups because each

Art Unit: 1647

group requires a different non-patent literature search due to each group comprising different products and/or method steps, restriction for examination purposes as indicated is proper.

### ***Election of Species***

This application contains claims directed to the following patentably distinct species of the claimed invention: recombinant virus consisting of adenovirus, adeno-associated virus, retrovirus or vaccinia virus.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claim 8 is generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

#### ***Advisory Information***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Johnalyn Lyles whose telephone number is 571-272-3433. The examiner can normally be reached on M-F 8 am - 4 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brenda Brumback can be reached on 571-272-0961. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1647

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jdl

  
SHARON TURNER, PH.D.  
PRIMARY EXAMINER  
4-4-05